

# How do we know about cells?

Gentleman from the past who did important work.

# Leeuwenhoek

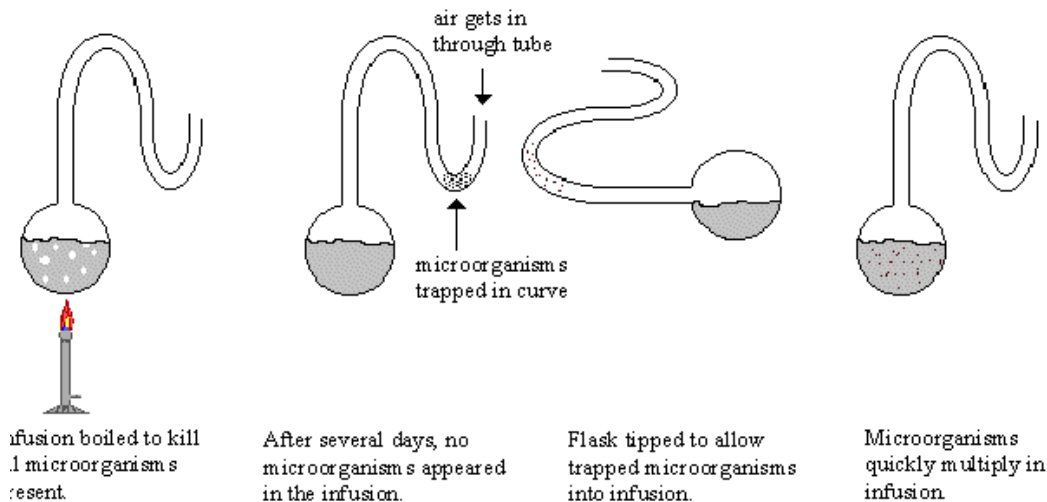
- Skilled microscope maker from the 1600s
  - Untrained, but passionate and honest
  - Probably the first to see and describe bacteria



Leeuwenhoek  
Microscope  
(circa late 1600s)

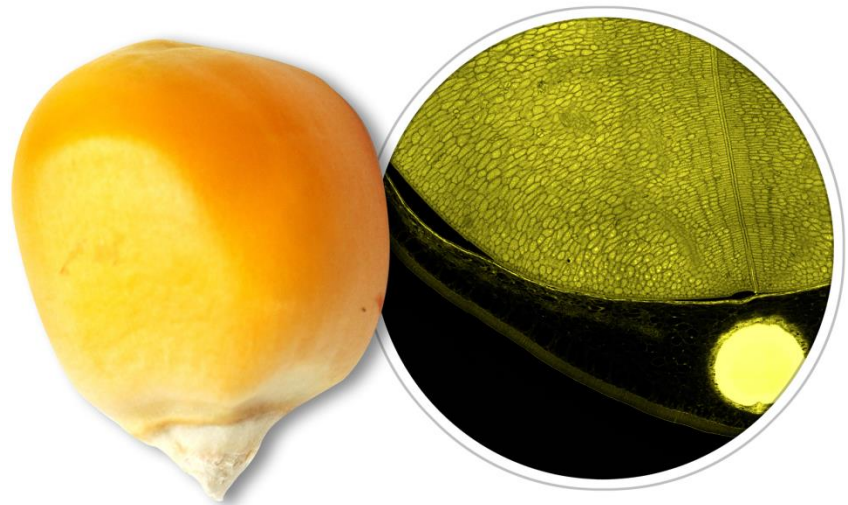
# Louis Pasteur

1. Showed that microorganisms could be found in the air.
2. That microorganisms can cause liquids to spoil
3. That microorganisms can be killed by heating the liquid



# Matthias Schleiden

- Concluded that all plants are composed of (plant) cells



# Theodor Schwann

- Concluded that all animals are composed of (animal) cells



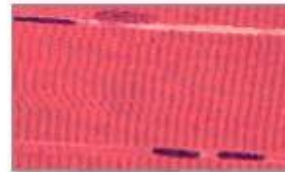
Four types of tissue



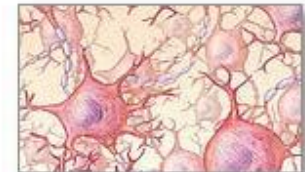
Connective tissue



Epithelial tissue



Muscle tissue

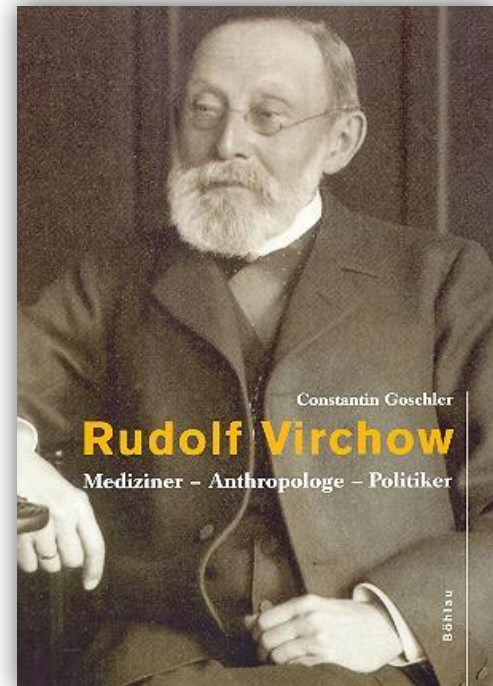


Nervous tissue

# Rudolf Virchow

- Stated that all cells are formed only from ones that already exist.

How did this contribute to cell theory?



# Cell Theory

1. All cells come from cells
2. The cell is the basic unit of organization in organisms
3. All organisms are made up of one or more cells

## Right Now...

- **Explain** why **biogenesis** provides a better explanation of where new life comes from than does **spontaneous generation**.